GPRA IB4 Data Set for Sleeping Bear Dunes National Monument

Ranking of the importance of the geoindicator to the park ecosystems, the degree of human influence, and the significance to park management at Sleeping Bear Dunes National Lakeshore.

Geoindicators	Geoindicator Importance	Human Influence	Management Significance
Alpine			
Frozen ground – Cryogenic Deposition* (Sand/Ice Layering)	L/Unknown	L	L
Arid and Semi-Arid			
Wind erosion*	Н	H (local)	H (local)
Dune formation and reactivation*	Н	H (local)	H (local)
Biotic Crust*	Unknown	Unknown	Unknown
Groundwater-Related			
Groundwater quality	Н	Н	Н
Groundwater level	Н	L	L
Surface Water			
Surface water quality	Н	Н	Н
Streamflow	M	M	M
Stream channel morphology*	M	M	Н
Stream sediment storage and load*	L	M	M
Wetlands (extent, structure, hydrology)	Н	Н	Н
Lakeshore**			
Lake levels *	Н	M	L
Shoreline position*	Н	M	Н
Geologic Hazard			
Slope failure (landslides)*	M	L	M
Other (Environmental)			
Soil and sediment erosion*	Н	Н	Н
Soil quality*	L	H (local)	L
Sediment sequence and composition*	Н	L	M

^{*} Geologic Resources Division, NPS provides technical expertise

^{**} Lake level geoindicator and shoreline position geoindicator are related.

H – HIGHLY influenced by, or with important utility for

M – MODERATELY influenced by, or has some utility for

L – LOW or no substantial influence on, or utility for